

Economic susceptibility of fire-prone landscapes in natural protected areas of the southern Andean Range

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Large fires are the most important disturbances at landscape-level due to their ecological and socioeconomic impacts. This study aimed to develop an approach for the assessment of the socio-economic landscape susceptibility to fire. Our methodology focuses on the integration of economic components of landscape management based on contingent valuation method (CVM) and net-value change (NVC). This former component has been estimated using depreciation rates or changes on the number of arrivals to different natural protected areas after a large fire occurrence. Landscape susceptibility concept has been motivated by the need to assist fire prevention programs and environmental management. There was a remarkable variation in annual economic value attributed to each protected area based on the CVM scenario, ranging from 40,189?46,887 \$/year (?Tolhuaca National Park?) to 241,000?341,953 \$/year (?Conguillio National Park?). We added landscape susceptibility using depreciation rates or tourist arrival decrease which varied from 2.04% (low fire intensity in ?Tolhuaca National Park?) to 76.67% (high fire intensity in ?Conguillio National Park?). The integration of this approach and future studies about vegetation resilience should seek management strategies to increase economic efficiency in the fire prevention activities. © 2017

Elsevier B.V.

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